Welcome!

We greatly appreciate your purchase of the VA6803SX/DA1926AV Interface. We are sure you will find it reliable and simple to use. Superior performance for the right price, backed by solid technical and customer support is what ALTINEX has to offer.

We are committed to providing our customers with Signal Management Solutions® to the most demanding audiovisual installations at very competitive pricing and we welcome you to join the ranks of our many satisfied customers throughout the world.

1. Precautions and Safety Warnings

Please read this manual carefully before using your VA6803SX/DA1926AV. Keep this manual handy for future reference. These safety instructions are to ensure the long life of your unit and to prevent fire and shock hazards. Please read them carefully and heed all warnings.

1.1 General

- Qualified ALTINEX service personnel or their authorized representatives must perform all service.

1.2 Installation Precautions

- For best results, place the interface on a flat, leveled surface in a dry area away from dust and moisture.
- To prevent fire or shock, do not expose this unit to water or moisture. Do not place the interface in direct sunlight, near heaters, or heat-radiating appliances, or near any liquid. Exposure to direct sunlight, smoke, or steam can harm internal components.
- Handle the interface carefully. Dropping or jarring can damage the unit.
- Do not pull any cables that are attached to the interface.
- Do not place heavy objects on top of the interface.
- If the interface is not used for an extended period, disconnect the adapter from the wall to avoid fire, shock, and loss of power.

1.3 Cleaning

- Unplug the VA6803SX/DA1926AV adapter before cleaning.
- Clean only the connector area with a dry cloth. Never use strong detergents or solvents such as alcohol or thinner. Do not use a wet cloth or water to clean the unit.

1.4 FCC Notice

- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions found herein, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
- Any changes or modifications to the unit not expressly approved by ALTINEX, Inc. could void the user's authority to operate the equipment.

2. Installation Procedures

Step 1. Connect the video and audio sources to the input ports on the interface. The inputs use standard audio and VGA-type cables.

Step 2. Connect the local video output of the VA6803SX/DA1926AV to the local monitor using standard VGA-type cable.

Step 3. Connect the local audio output of the VA6803SX/DA1926AV to the audio speakers at the local computer.

Step 4. Make the main video and audio output connections:

VA6803SX:	Connect the main out BNCs to the projector/monitor. Typically, either a 4 or 5-BNC coaxial cable is used: 4 BNCs for composite sync devices (RGBS) and 5 BNCs for H&V sync devices (RGBHV).
DA1926AV:	The DA1926AV has 2 main outputs. Connect the projectors/monitors to the 15-pin HD main output connectors on the DA1926AV using high-quality VGA-type cable. An unused output does NOT need to be terminated.
VA6803SX/DA1926AV:	The main audio connects to the sound system amplifier using the terminal block connector; both interfaces can be wired for balanced or unbalanced operation.

Step 5. Connect the external AC adapter provided with the unit to the interface and plug it in to AC power. The power indicator light on should turn on. The LED will be red with power only and green if an input signal is present.

Step 6. Adjust the horizontal image position using the monitor or projector control. If further adjustments of the image are needed, use the knob located on the left side of the VA6803SX.

Step 7. Adjust the equalization settings for the best image quality.

3. Limited Warranty/Return Policies

Please see the ALTINEX website at www.altinex.com for details on warranty and return policies.

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4. Technical Specifications

Specifications are subject to change. See www.altinex.com for up-to-date information.

Features/Description		VA6803SX/DA1926AV
Inputs		
VA6803SX:	VGA	15-pin HD F (1)
	Audio	3.5 mm F (1)
DA1926AV:	VGA	15-pin HD F (1)
	Audio	3.5 mm F (1)
Outputs		
VA6803SX:	Main Video	BNC F (5)
	Main Audio	5-pin TB (1)
	Local Video	15-pin HD F (1)
	Local Audio	3.5 mm F (1)
DA1926AV:	Main Video	15-pin HD F (2)
	Main Audio	5-pin TB (1)
	Local Video	15-pin HD F (1)
	Local Audio	3.5 mm F (1)
Power		
DC Power jack		2.5 mm F (1)
Compatibility		
Signal Types		RGB, RGsB, RGBS, RGBHV, YPbPr
Video Signal Resolutions		VGA through UXGA, 480p through 1080i
Accessories Included		
Power Adapter		+9VDC, 1.1 A
Hardware		5-pin terminal block mating connector
Optional Accessories		
Mounting Bracket		MB1001
Patch Cable (18.0 in, 457 mm) 15-pin HD M to 5 BNC M		MS6418VB

Table 1. VA6803SX/DA1926AV General

Mechanical	VA6803SX/DA1926AV
Material/Color	Aluminum/ALTINEX grey
VA6803SX/DA1926AV .... Height	4.3 in (109 mm)
VA6803SX/DA1926AV .... Width	5.2 in (132 mm)
DA1926AV ..... Depth	1.0 in (25 mm)
VA6803SX..... Depth	1.1 in (28 mm)
Weight	0.7 lb (0.3 kg)
Shipping Weight (approx.)	1.5 lb (0.7 kg)
T° Operating	10°C-35°C
T° Maximum	50°C
Humidity	90% non-condensing
MTBF (calculations)	40,000 hrs (min.)

Table 2. VA6803SX/DA1926AV Mechanical

Electrical	VA6803SX/DA1926AV
Video Input	
Video Signal	1.2 Vp-p max
Video Impedance	75 ohms
Sync Input	
Sync Level	TTL (+/-)
Sync Impedance	10 kohms
Sync-on-Green	-0.3 V
Audio Input Signal	
Impedance	10 kohms
Level	0 dBu max
Video Output	
Gain	0 dB +/- 0.5 dB
Impedance	75 ohms
Sync Output	
Level	TTL (+/-)
Impedance	22 ohms
Sync-on-Green	-0.3 V
Audio Output	
Impedance	50 ohms
Gain	+0 dB balanced, +6 dB unbalanced
Response	20 Hz to 20 kHz +/- 0.5 dB
Power Consumption	
+9V	400 mA
Total Power	3.6 W max.

Table 3. VA6803SX/DA1926AV Electrical

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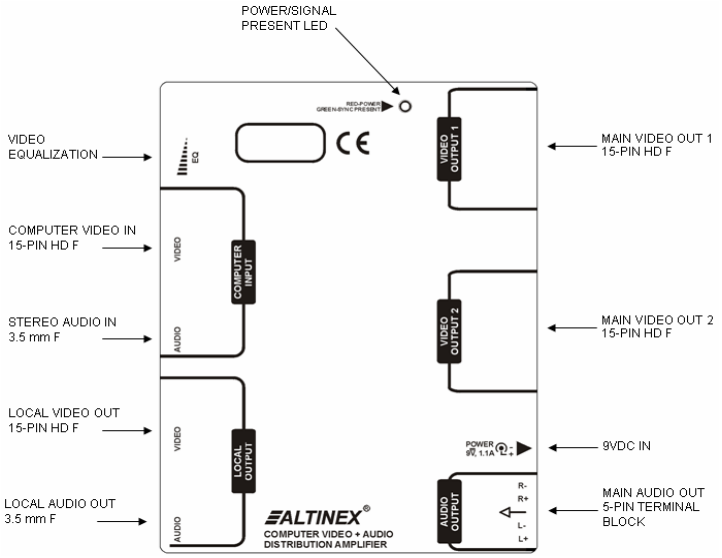
5. About Your VA6803SX/DA1926AV

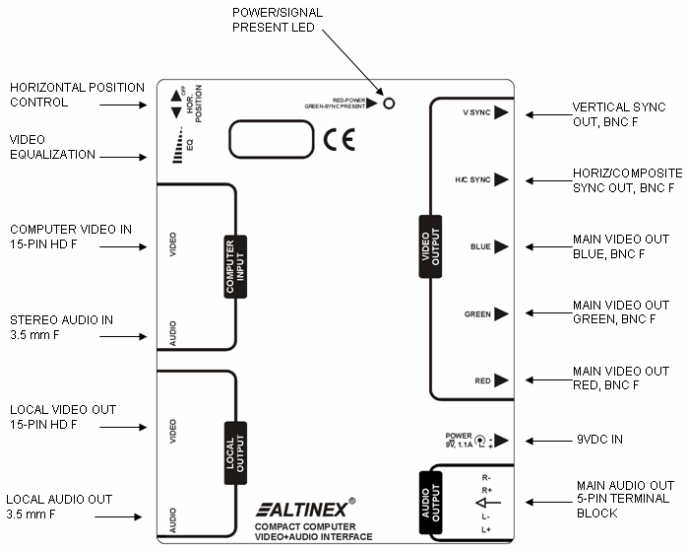
The VA6803SX and DA1926AV interfaces are designed to resolve incompatibility issues that occur when displaying a computer image on a large screen data projector or monitor. Both are high-resolution computer video interfaces with stereo audio and are designed to allow the connections of VGA, SVGA, XGA, UXGA, MAC, SUN, SGI, and other analog computer video sources to scan-rate compatible monitors, projectors, and LCD displays.

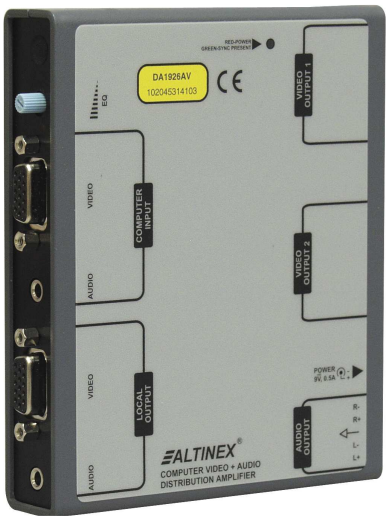
These interfaces amplify video signals and convert various sync formats. They do not change the scan-rate or the resolution of the video signal. The computer and projector must be scan-rate compatible with each other. The VA6803SX and DA1926AV can equalize the attenuation effects of long cable runs, up to 300 ft (91 m), or more, depending upon the type of cable.

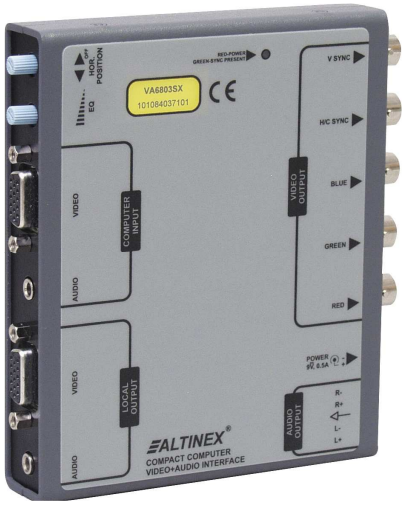
Each unit provides fully buffered main and local video outputs. The VA6803SX has one main output that is provided on 5 BNC connectors, while the DA1926AV has two main outputs that are provided on 15-pin HD connectors. The local video outputs on both units are provided on a 15-pin HD connector. On the VA6803SX, if the input signal format is RGBS or RGBHV, the main output can be RGBHV, RGBS, or RGsB. If the input signal is RGsB, the output must be RGsB. The VA6803SX and DA1926AV do not separate sync from green.

The VA6803SX and DA1926AV each accept stereo audio inputs and offer a balanced stereo output as well as a local stereo output. The input and local output use 3.5 mm jacks, while the main outputs are provided on 5-pin terminal blocks for stereo audio transmission to the main sound system. The main output can be wired for balanced or unbalance audio.


POWER/SIGNAL PRESENT LED
VIDEO EQUALIZATION
COMPUTER VIDEO IN 15-PIN HD F
STEREO AUDIO IN 3.5 mm F
LOCAL VIDEO OUT 15-PIN HD F
LOCAL AUDIO OUT 3.5 mm F
MAIN VIDEO OUT 1 15-PIN HD F
MAIN VIDEO OUT 2 15-PIN HD F
9VDC IN
MAIN AUDIO OUT 5-PIN TERMINAL BLOCK
ALTINEX
COMPUTER VIDEO + AUDIO DISTRIBUTION AMPLIFIER


POWER/SIGNAL PRESENT LED
HORIZONTAL POSITION CONTROL
VIDEO EQUALIZATION
COMPUTER VIDEO IN 15-PIN HD F
STEREO AUDIO IN 3.5 mm F
LOCAL VIDEO OUT 15-PIN HD F
LOCAL AUDIO OUT 3.5 mm F
VERTICAL SYNC OUT, BNC F
HORIZ/COMPOSITE SYNC OUT, BNC F
MAIN VIDEO OUT BLUE, BNC F
MAIN VIDEO OUT GREEN, BNC F
MAIN VIDEO OUT RED, BNC F
9VDC IN
MAIN AUDIO OUT 5-PIN TERMINAL BLOCK
ALTINEX
COMPACT COMPUTER VIDEO+AUDIO INTERFACE





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6. Application Diagrams

Diagram 1: DA1926AV Typical Setup

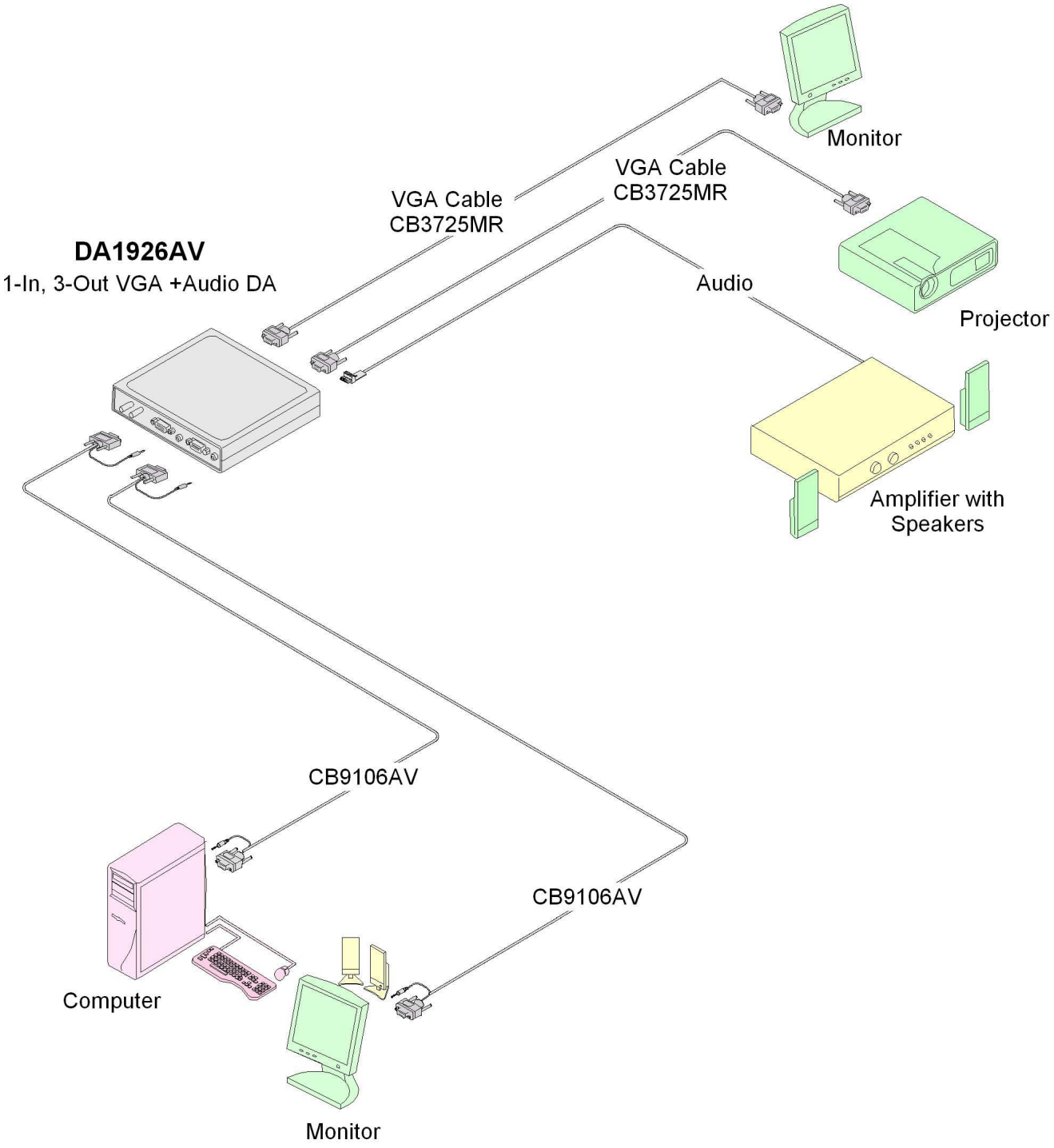

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Diagram 2: VA6803SX Typical Setup

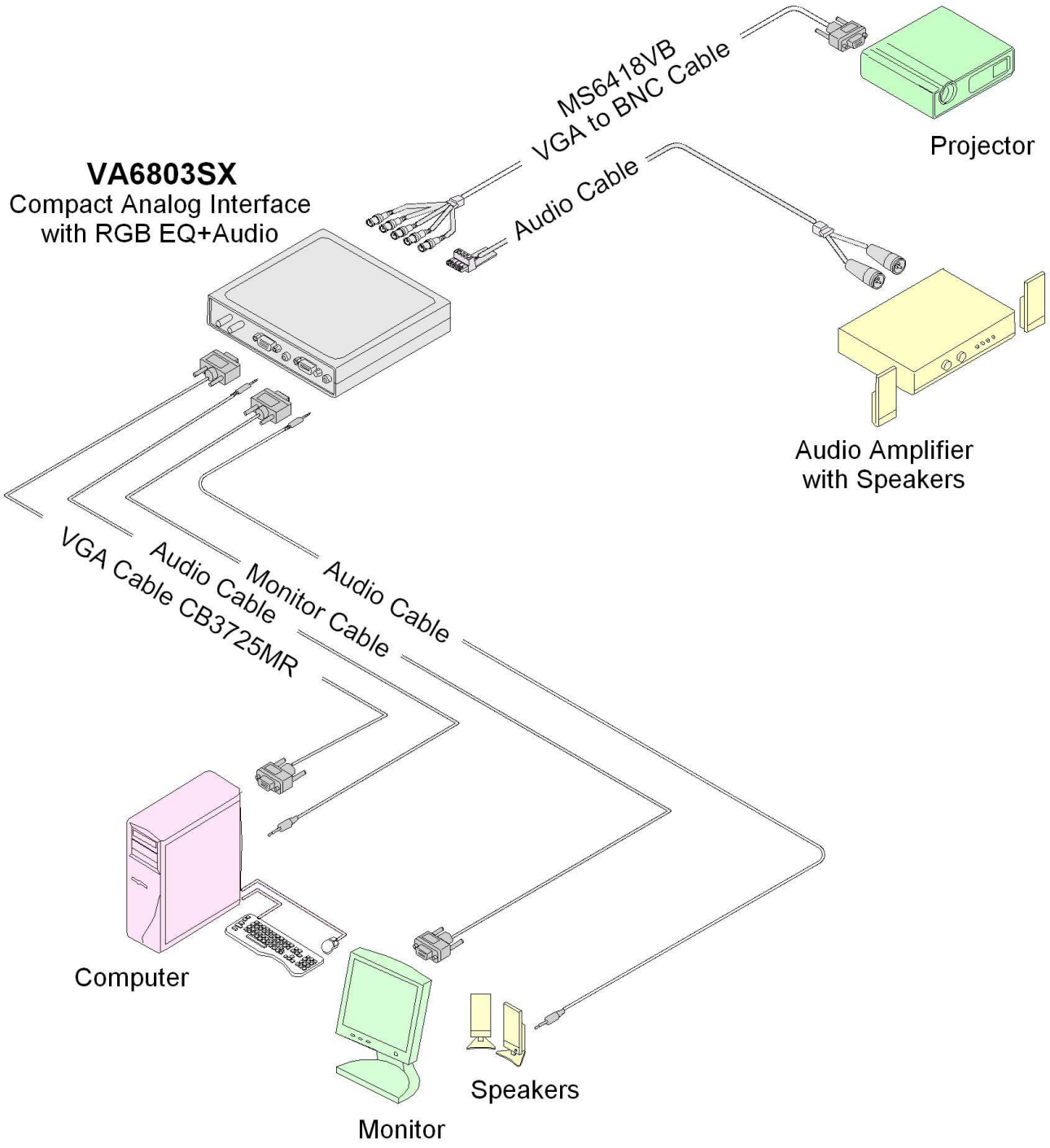

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Diagram 3: DA1926AV Internal View

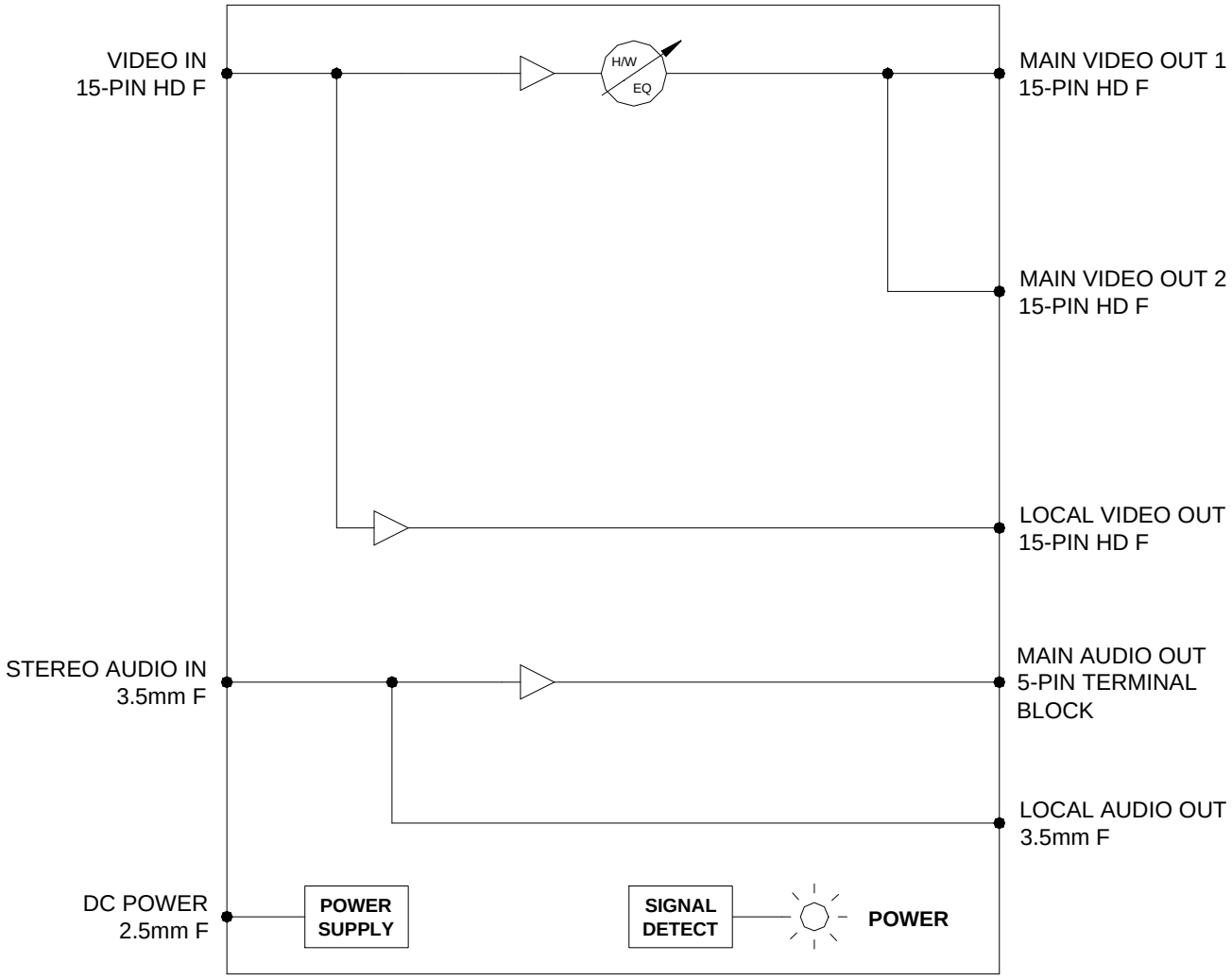

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Diagram 4: VA6803SX Internal View

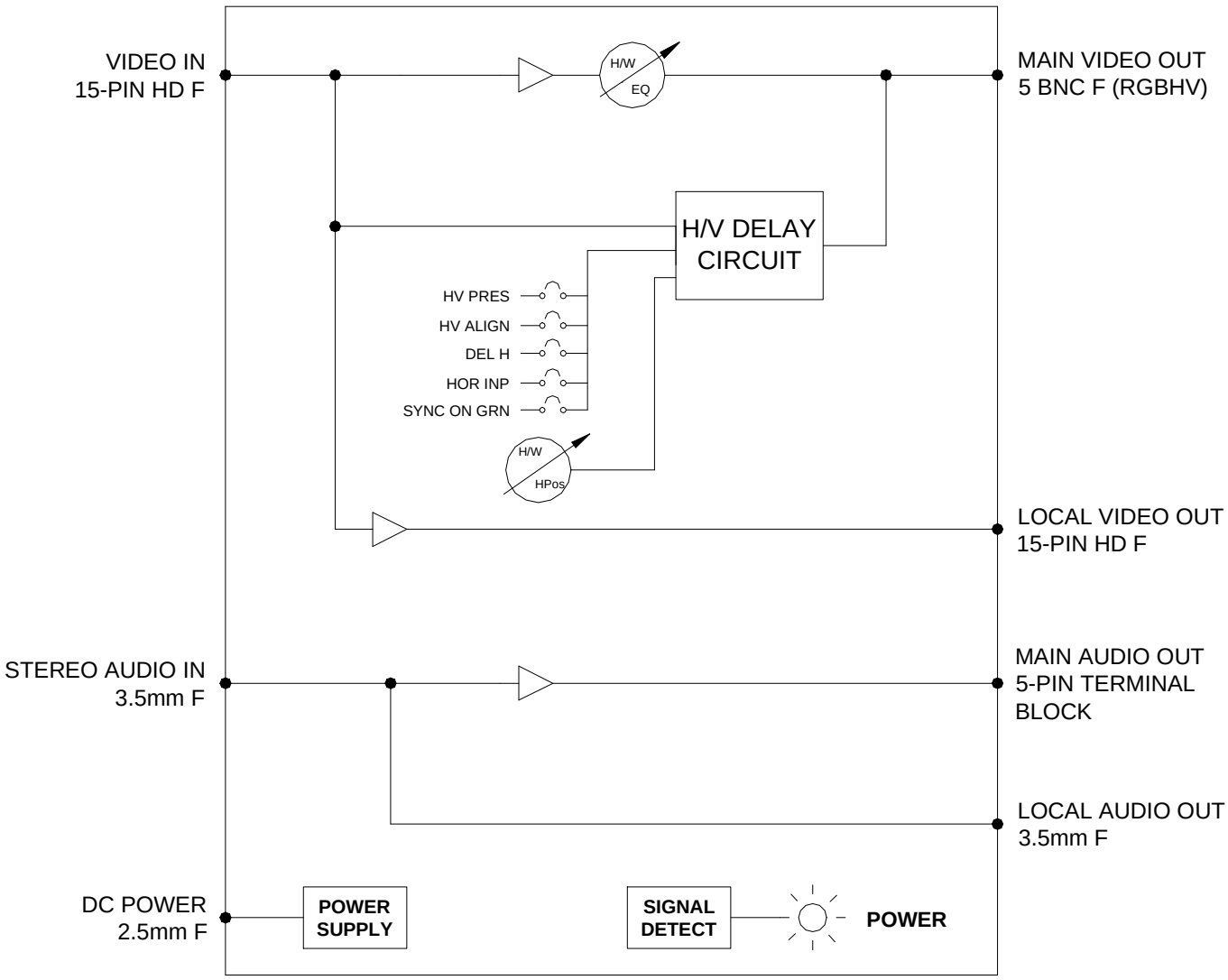

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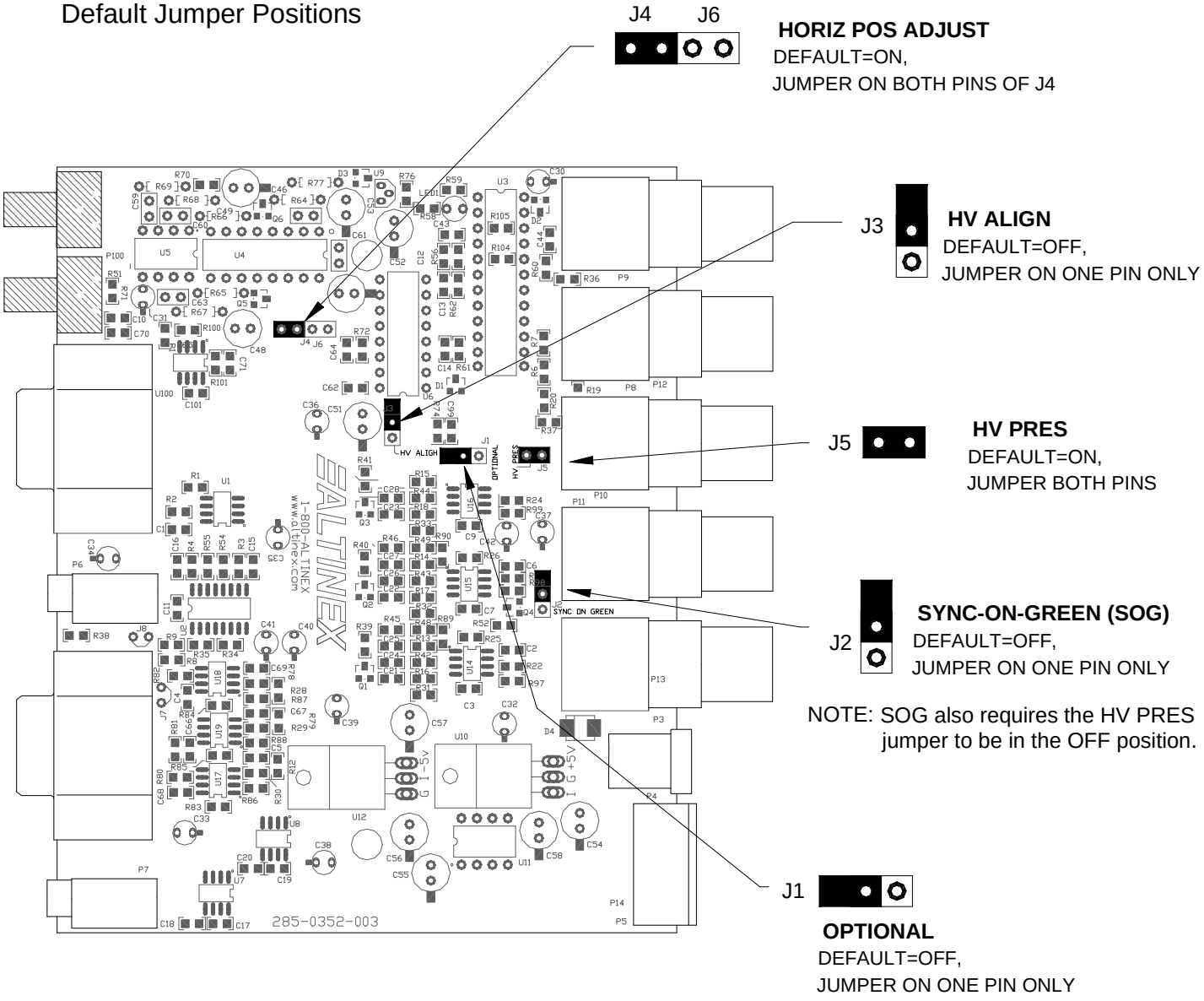
Diagram 5: VA6803SX Internal Jumpers



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7. Operation

Once the horizontal position and equalization controls are set, the VA6803SX/DA1926AV will operate successfully without user intervention.

7.1 Horizontal Position (VA6803SX)

Most monitors and projectors are capable of horizontal position adjustments. In some instances, like when using multiple computers, it is helpful to adjust the horizontal position at the interface and often simplifies the set up.

Turn the knob fully counterclockwise to turn off the horizontal position control. Turn the knob clockwise to enable the horizontal position control and to adjust the image as desired. It is recommended to first adjust the horizontal position of the image using the monitor or projector Horizontal Position control. If further adjustments are needed, use the VA6803SX.

7.2 Equalization

Equalization is a means of boosting the red, green, and blue signals at high frequencies for cable runs over 100 ft (30 m), and up to 300 ft (91 m). The equalization control should be set fully counterclockwise to minimum for short cable runs. The longer the cable run, the more equalization is required.

7.3 Sync-On-Green, SOG

Systems that use large matrix switchers are often designed to switch signals in RGsB format in order to reduce costs. In these systems, the ability of the VA6803SX/DA1926AV to pass sync-on-green can be very helpful.

The VA6803SX/DA1926AV cannot separate H&V sync from the green signal if the input signal is RGsB. The VA6803SX can combine sync with green video when the internal SOG jumper is set to the ON position and the HV PRES jumper is in the OFF position regardless of whether the input signal is RGBS or RGBHV.

8. Troubleshooting Guide

We have carefully tested and found no problems in the supplied VA6803SX/DA1926AV; however, we would like to offer suggestions for the following:

8.1 LED is Not Red

The LED should be ON and RED when power is applied and there is no video signal present. If the LED is ON and GREEN, the unit is receiving power and a SYNC signal.

Cause 1: No AC power.

Solution: Verify the adapter is plugged into a working AC outlet and that the outlet has power.

Cause 2: Adapter is not plugged into the device.

Solution: Verify the DC power plug coming from the AC adapter is plugged all the way into the VA6803SX/DA1926AV.

Cause 3: The device has a problem.

Solution: If there is AC power to the adapter and the LED still does not turn on, the VA6803SX/DA1926AV or the power adapter may require service; call ALTINEX at (714) 990-2300.

8.2 LED is Not Green

Cause 1: There is no power.

Solution: Disconnect the video input from the interface and verify the LED is ON and RED indicating power is present. Reconnect the computer's video output. If the LED is still not GREEN see Cause 2.

Cause 2: There is no sync signal.

Solution: Verify the computer output is operating correctly by connecting it directly to the local monitor. If the display is good, call ALTINEX at (714) 990-2300.

8.3 No Sound

Cause 1: The source has a problem.

Solution: Check the source and make sure that there is a signal present and all source connections are correct. If the source is working and there is still no sound, see Cause 2.

Cause 2: The volume is too low.

Solution: Increase the source level. If there is still no sound present, see Cause 3.

Cause 3: Cable connections are incorrect.

Solution: Make sure that cables are properly connected. Also, make sure that the continuity and wiring are good. If there is still no sound, see Cause 4.

Cause 4: The receiving device has a problem.

Solution: Make sure the receiving device is powered and is turned on. If there is still no sound, please call ALTINEX at (714) 990-2300.

8.4 No Remote Image

Cause 1: The source has a problem.

Solution: Check the image on the local monitor and verify the quality is good. If the local image is good, see Cause 2.

Cause 2: Cable connections are incorrect.

Solution: Make sure that cables are connected properly. Also, make sure that the continuity and wiring are good. If there is still no image present, see Cause 3.

Cause 3: Video equalization required.

Solution: Adjust the VIDEO EQUALIZATION on the interface. Cable runs less than 100 ft (30 m) require little or no equalization and should be set to minimum. Cable runs up to 300 ft (91 m) will require near maximum equalization.

8.5 Remote Image Quality is Poor

Cause 1: The source has a problem.

Solution: Check the image on the local monitor and verify the quality is good. If the local image is good, see Cause 2.

Cause 2 Poor signal transmission.

Solution: Check the cables for continuity and make sure that connections are wired properly to verify that there is good signal transmission. If the image is still not correct, call ALTINEX at (714) 990-2300.

Cause 3: Video equalization required.

Solution: Adjust the VIDEO EQUALIZATION on the interface. If the image is still not correct, call ALTINEX at (714) 990-2300.

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8.6 Miscellaneous Checks

VA6803SX/DA1926AV

- Make sure the amplitude level of the input signals are within spec:

  RGB (red/green/blue): 0 to 1.2 Vp-p (-0.3 for SOG)

  HV (h-sync/v-sync): TTL (0 to 5.0 V)

- Use only the ALTINEX supplied power supply (AC Adapter) for proper operation.
- If problems show up on the display after continuous usage at higher voltage, higher temperature, higher humidity, or at other extreme environmental conditions, please correct those extreme conditions.
- Disconnect the vertical sync connection when using devices that require composite sync. Some monitors/projectors do not function or behave erratically when both signals are present.

VA6803SX

- Adjust the horizontal position control of the display first and then use the horizontal position control knob located on the interface only if needed.
- If using RGsB format (sync-on-green), make sure that the SYNC-ON-GREEN internal jumper inside of the unit is in the ON position and that the HV PRES jumper is in the OFF position.
- Make sure that the HV PRES internal jumper is set in the OFF position if using composite sync.

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